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PATENT COOPERATION TREATY

PCT

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

PCT

(PCT Article 36 and Rule 70)



Applicant's or agent's file reference 30A-88 738	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/EP 02/10887	International filing date (day/month/year) 27.09.2002	Priority date (day/month/year) 27.09.2002
International Patent Classification (IPC) or both national classification and IPC H04Q7/38		
Applicant TELEFONAKTIEBOLAGET LM ERICSSON (PUBL) et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 8 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of 4 sheets.

3. This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 20.04.2004	Date of completion of this report 21.12.2004
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International application No. **PCT/EP 02/10887**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-20 as originally filed

Claims, Numbers

1-16 received on 11.08.2004 with letter of 11.08.2004

Drawings, Sheets

1/8-8/8 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).
- (Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:
- ☐ the entire international application,
 - ☒ claims Nos. 11, 12
- because:
- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):
 - ☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 11, 12 are so unclear that no meaningful opinion could be formed (*specify*):
- see separate sheet**
- ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
 - ☐ no international search report has been established for the said claims Nos.
2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:
- ☐ the written form has not been furnished or does not comply with the Standard.
 - ☐ the computer readable form has not been furnished or does not comply with the Standard.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-16
	No: Claims	
Inventive step (IS)	Yes: Claims	3,9
	No: Claims	1,2,4-8,10-16
Industrial applicability (IA)	Yes: Claims	1-16
	No: Claims	

2. Citations and explanations

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see separate sheet

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Re Item III

Non-establishment of report with regard to novelty, inventive step and industrial applicability

1. **Claims 11 and 12** relate to subject-matter excluded from International Preliminary Examination (**Rule 67 PCT**, PCT Guidelines 9.11, 9.12).

Re Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following documents:

D1: US 2001/038619 A1

D2: WO 99/ 60729 A1

2. The solution claimed in **Claim 1** of the present application cannot be considered as involving an inventive step (**Article 33(3) PCT**) for the following reasons.

Document **D1**, which is considered to represent the most relevant state of the art, discloses, according to the essential features of **Claim 1** (applying the terminology of present Claim 1 and the references to D1) a method of requesting access to a node (BS) of a wireless communications network (paragraphs [0022], [0023]), comprising the step of:

- determining information about a transmission path (initial transmit power of Common Pilot Channel) within the network (paragraphs [0002] - [0004]);
- determining an identification code, in dependence on the determined transmission path information, wherein previously an association between identification codes and transmission path information has been established, and generating an access request signal carrying transmission path information (**D1** discloses that the mobile station uses as the transmission of path information to the base station an indication of the measured downlink path loss (paragraphs [0025]-[0028]), such that the Access Preamble (AP) in an access request signal (the RACH uplink

channel) is coded with one of a plurality of different signature combinations (paragraph [0032]) for every predetermined different range of measured power of the DL channel (e.g. CPICH). Hence, an association between id codes (signatures) and path info (downlink path loss) is established);

The subject-matter of **Claim 1** therefore differs from **D1** in that it claims:

- id codes used to differentiate access requests of different network components;
- modulating the determined identification code onto a signal to generate an access request signal carrying transmission path information.

The objective problem solved by these features would be regarded by the skilled person as to provide means to uniquely identify one of a plurality of mobile stations requesting access to a particular mode in a wireless communication network on the basis of transmission path characteristics.

Although, **D1** does not explicitly state to modulate the determined identification code (signature) onto the access request signal carrying transmission path information, this technical feature is obvious for the person skilled in spread spectrum communication systems (see for instance Document **D2**, page 3, lines 10-14 disclosing a Random Access Scheme for CDMA or WCDMA communication system).

Moreover, as disclosed in **D2** (see for instance page 3, lines 10-19) the access preamble contains a signature that is used to differentiate the several mobile stations attempting to get access to the network and thus avoid collisions, hence, as the name "signature" suggests, providing an identification information of the mobile station.

Thus, the subject-matter of **Claim 1** does not involve an inventive step and **Claim 1** does not satisfy the criterion set forth in **Article 33(3) PCT**.

3. The solution claimed **Claim 6** of the present application cannot be considered as involving an inventive step (**Article 33(3) PCT**) for the following reasons.

Claim 6 contains a corresponding feature combination as a counterpart of **Claim 1** in

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terms of a method of controlling access to a base station node based on the same access request signal.

Therefore, the same considerations made in respect of the features of **Claim 1** are also valid for **Claim 6**, thus the subject-matter of **Claim 6** does not involve an inventive step (**Article 33(3) PCT**).

4. The same considerations as made in respect of independent **Claims 1 and 6** are also valid for independent **Claims 13 and 15**, which contain a similar feature combination as **Claims 1 and 6** (all except the modulation/demodulation)) respectively in terms of claims relating to a User Equipment apparatus and a Base Station apparatus.

Therefore, the subject-matter of independent **Claims 13 and 15** does not involve an inventive step in the sense of **Articles 33(3) PCT**.

5. The features defined in **dependent Claims 2, 4 to 5, 7, 8, 10, 14 and 16** do not add anything of inventive significance to **Claims 1, 6, 13 and 15** respectively because they relate to minor details and are either directly derivable from the above-mentioned prior art documents **D1 and D2**, or represents standard practice.

Therefore, the subject-matter of dependent **Claims 2, 4, 5, 7, 8, 10, 14 and 16** does not involve an inventive step in the sense of **Articles 33(3) PCT**.

6. The features in dependent **Claims 3 and 9**:

- access control signal simultaneously includes access control information for a plurality of network components; and
- wherein the access control information for each network component is associated in the access control signal with an individual id code.

are neither known from **D1**, nor rendered obvious by the other available prior art document **D2**.

7. Furthermore, certain observation on the clarity of the claims are made and certain

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defects in the application documents are noted in the following:

- 7.1 **Claim 11** defines a computer program product for performing the steps of one of **Claims 1 to 10** when the program runs on "a" (therefore "one") network component, but from this definition the reader derives the impression that the same computer program is executed on both network components defined by **Claims 1 to 5 (UE)** and **Claims 6 to 10 (BS)**. Because of this ambiguity in its definition, **Claim 11** does not meet the requirements of **Article 6 PCT**. It is furthermore noted that the features of **Claim 11** should be rather defined by two distinct Claims defining a computer program for performing the steps of the method of **Claims 1 to 5 (UE)** and **Claims 6 to 10 (BS)** respectively.
- 7.2 Independent claims are not in the two-part form recommended by **Rule 6.3(b) PCT** with the features known in combination from the prior art (document D1) being placed in the preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).
- 7.3 The opening part of the description has not been modified to bring it into agreement with the amended claims, **Rule 5.1(a)(iii) PCT**.
- 7.4 The cited document **D1** has not been acknowledged and briefly discussed in the opening part of the description as recommended by **Rule 5.1(a)(ii) PCT**.